

## CLAIMS

What is claimed is:

1. A medication system for performing at least one health safety function, the system comprising:

at least one container for holding doses of medication, the container having an RF memory device containing specifying information useable to determine a prescribed dosing regimen for the medication;

an RF sensor defining a sensing area, the sensor for receiving the specifying information when the RF memory device is within the sensing area; and

a processor;

wherein the processor receives and uses the specifying information to identify prescribed dosing regimen information and the processor performs at least one health safety function as a function of the prescribed dosing regimen information.

2. The system of claim 1 further including a communication device and a timing device, the processor linked to the timing device and linkable to the communication device and, wherein, the processor further uses the specifying information to determine a predetermined time to take the medication, uses the timing device to identify the predetermined time and causes the communication device to indicate when the predetermined time occurs.

3. The system of claim 1 wherein the sensor defines a sensor surface adjacent the antenna and the sensing area is adjacent the sensor surface.

4. The system of claim 3 wherein the sensor surface is horizontal and the container is supportable on the sensor surface such that the RF device is within the sensing area.

5. The system of claim 4 wherein, when the container is supported on the sensing surface the container includes at least one essentially downward facing container surface and the RF device is attached to the downward facing container surface.

6. The system of claim 5 wherein the sensor is embedded in the container surface.

7. The system of claim 4 wherein the sensor surface includes a sensing section and a non-sensing section, the sensing area is only adjacent the sensing section and the sensor includes an aligner distinguishing the sensing section from the non-sensing section.

8. The system of claim 7 wherein the aligner includes indicia on the sensing surface.

9. The system of claim 8 wherein the downward facing surface has a first shape and the indicia has a second shape and the first and second shapes are essentially identical.

10. The system of claim 9 wherein the container is a vial including a bottom surface and the downward facing surface is the bottom surface.

11. The system of claim 2 wherein the communication device and the sensor are integral.

12. The system of claim 2 wherein the timing device, processor, communication device and sensor form a portable device.

13. The system of claim 12 wherein the portable device includes a strap such that the device is wrist mountable.

14. The system of claim 2 wherein the timing device, processor, communication device and sensor form a console for stationary use.

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15. The system of claim 1 wherein the at least one container includes several containers, each container includes an RF memory device, the sensing area can receive more than one RF memory device at a time and, wherein, when more than one RF memory device is within the sensing area, the sensor retrieves the specifying information from each of the RF memory devices.

16. The system of claim 2 further including an enclosure wherein the sensor and the sensing area are concealed within the enclosure and the communication device is outside the enclosure.

17. The system of claim 2 wherein the communication device includes a visual display.

18. The system of claim 15 further including a separate communication device for each of the several containers, the communication devices attached to the containers.

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19. The system of claim 1 wherein the health safety function includes indicating when a medication is being consumed at a non-optimal time, the system further including a consumption indicator, the consumption indicator activatable to indicate when a dose of medication is to be consumed, wherein the processor receives and uses the specifying information to identify a predetermined prescribed time to take the medication, the processor monitors the consumption indicator to determine when a medication is to be consumed and, when a medication is to be consumed, the processor uses the timing device to determine if the time to consume is consistent with the predetermined time to consume.

20. The system of claim 19 further including a communication devices linkable to the processor and wherein, when the time to consume is inconsistent with the predetermined time to consume, the processor indicates that the medication should not be consumed at the time indicated by the consumption indicator.

21. The system of claim 20 wherein the indicator and the sensor are integral so that one of placing the specifying device on and removing the specifying device from the sensor area indicates the consumption time.

Patent Application No. 10/200,000

22. A medication system for performing at least one health safety function, the system comprising:

at least one container for holding doses of medication, the container having a specifying device containing specifying information useable to determine a

prescribed dosing regimen for the medication;

a sensor defining a sensing area, the sensing area capable of receiving at least two specifying devices at the same time, the sensor for receiving the specifying information from each of the specifying devices within the sensing area; and

a processor;

wherein the processor receives and uses the specifying information to identify prescribed dosing regimen information and the processor performs at least one health safety function as a function of the prescribed dosing regimen information.

23. The systems of claim 22 further including a communication device linkable to the processor the communication device capable of indicating any of the containers.

24. The system of claim 23 further including a timing device linked to the processor wherein, when more than one specifying device is within the sensing area, the processor receives and uses the specifying information for each specifying device in the sensing area to identify prescribed dosing regimen information and a predetermined time to take each of the medications, the processor uses the timing device to determine when the predetermined time occurs for each of the medications and the processor causes the communication device to indicate the medications to be consumed at the predetermined times.

25. The system of claim 24 wherein the sensing area includes at least first and second separate sensing areas for receiving specifying information from separate specifying devices.

26. The system of claim 25 wherein the communication device includes a separate visual warning indicator adjacent each of the sensing areas and, wherein,

the communication device indicates which medication to consume by activating the visual warning indicator adjacent medication to be consumed.

27. The system of claim 26 wherein the sensor defines a horizontal sensor surface, when containers are supported on the sensing surface the containers each include at least one essentially downward facing surface, the specifying devices are attached to the downward facing surfaces, the sensor surface includes a sensing section and a non-sensing section for each of the sensing areas, the sensing areas only adjacent the sensing sections and the sensor includes a separate aligner for each of the sensing sections distinguishing the sensing sections from the non-sensing section.

28. The system of claim 27 wherein the aligners include indicia on the sensing surface.

29. The system of claim 28 wherein the downward facing surfaces each have a first shape and the indicia each have a second shape and the first and second shapes are essentially identical.

30. The system of claim 22 wherein the specifying device is a bar code.

31. The system of claim 22 wherein the specifying device is an electronic memory device.

32. The system of claim 23 wherein the communication device includes at least one communication device for each container and a separate communication device is attached to each container.

33. The system of claim 22 wherein the processor periodically causes the sensor to scan the sensing area to identify specifying devices in the sensing area.

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34. The system of claim 33 wherein each container includes a separate communication device and wherein the processor is linkable to the communication devices to control each communication device.

35. The system of claim 34 wherein the processor controls the communication device via wireless communication.

36. The system of claim 23 wherein the communication device includes a visual display.

37. The system of claim 22 also for use in recording medication consumption times, the system further including a readable and writable memory device and a consumption indicator that are linkable to the processor, the consumption indicator operable to obtain consumption time information which the processor records in the memory device.

38. The [ 40]system of claim 37 wherein the sensor and consumption indicator are integral such that one of placing and removing a specifying device in the sensing area comprises operation of the consumption indicator.

39. The system of claim 37 wherein the memory device and the specifying device are integral.

40. The system of claim 23 wherein the processor is a remote server processor linkable to the sensor and the communication device via a computer network.

41. A medication system for performing at least one health safety function, the system comprising:

at least one container for holding doses of medication, the container having a specifying device containing specifying information useable to determine a

prescribed dosing regimen for the medication, the specifying information including a serial number;

a sensor defining a sensing area, the sensor for receiving the specifying information when the specifying device is within the sensing area; and

a processor linkable to a memory device that correlates serial numbers with prescribed dosing regimens;

wherein the processor receives the specifying information, correlates the serial number and the regimen to determine the prescribed regimen for a medication and then performs at least one health safety function as a function of the prescribed dosing regimen information.

42. The system of claim 34 wherein the processor and communication device are part of a network computer.



43. A medication system for recording medication consumption times, the system comprising:

at least one container for holding doses of medication, the container having a specifying device containing specifying information useable to determine the type of medication in the container;

a readable and writable memory device;

a consumption indicator;

a sensor defining a sensing area, the sensor for receiving the specifying information when the specifying device is within the sensing area; and

a processor in communication with a timing device and also linkable to the consumption indicator, the memory device and the sensor;

wherein the processor receives and uses the specifying information to identify the medication type, when the consumption indicator is operated the timing device determines consumption time and the processor stores the consumption time and medication type in the memory device.

44. The system of claim 43 wherein the specifying device is an Rf memory device, the sensor includes an Rf identification antenna for sensing information in the specifying device and the sensing area is adjacent the antenna.

45. The system of claim 44 wherein the sensor defines a sensor surface adjacent the antenna and the sensing area is adjacent the sensor surface.

46. The system of claim 45 wherein the sensor surface is horizontal and the container is supportable on the sensor surface such that the RF device is within the sensing area.

47. The system of claim 46 wherein, when the container is supported on the sensing surface the container includes at least one essentially downward facing container surface and the RF device is attached to the downward facing container surface.

48. The system of claim 47 wherein the Rf device is embedded in the container surface.

49. The system of claim 47 wherein the sensor surface includes a sensing section and a non-sensing section, the sensing area is only adjacent the sensing section and the sensor includes an aligner distinguishing the sensing section from the non-sensing section.

50. The system of claim 49 wherein the aligner includes indicia on the sensing surface.

51. The system of claim 50 wherein the downward facing surface has a first shape and the indicia has a second shape and the first and second shapes are essentially identical.

52. The system of claim 47 wherein the container is a vial including a bottom surface and the downward facing surface is the bottom surface.

53. The system of claim 43 wherein the sensor and consumption indicator are integral such that one of placing and removing a specifying device in the sensing area comprises operation of the consumption indicator.

54. The system of claim 43 wherein the processor and the timing device are integral with the communication device and the sensor.

55. The system of claim 54 wherein the timing device, processor, consumption indicator and sensor form a console for stationary use.

56. The system of claim 54 wherein the timing device, processor, consumption indicator and sensor form a portable device.

57. The system of claim 56 wherein the portable device includes a strap such that the device is wrist mountable.

58. The system of claim 43 wherein the specifying device is a bar code.

59. The system of claim 43 wherein the specifying device is an electronic memory device.

60. The system of claim 43 wherein the specifying information includes a serial number and the processor is linkable to a memory device that correlates serial numbers with medication types and wherein the processor identifies medication type by correlating the serial number and the medication type.

61. The system of claim 43 wherein the at least one container includes several containers, each container includes a specifying device, the sensing area can receive more than one specifying device at a time and, wherein, when more than one specifying device is within the sensing area, the sensor retrieves the specifying information from each of the specifying devices.

62. The system of claim 61 wherein the specifying devices are RF memory devices, the sensor includes an Rf identification antenna for sensing information in the memory devices and the sensing area is adjacent the antenna.

63. The system of claim 62 wherein the sensor defines a sensor surface adjacent the antenna and the sensing area is adjacent the sensor surface.

64. The system of claim 63 wherein the sensor surface is horizontal and the containers are supportable on the sensor surface such that the RF devices are within the sensing area.

65. The system of claim 64 wherein, when the containers are supported on the sensing surface each container includes at least one essentially downward facing container surface and the RF device is attached to the downward facing container surface.

66. The system of claim 65 further including an enclosure wherein the sensor and the sensing area are concealed within the enclosure and the communication device is outside the enclosure.

67. The system of claim 43 wherein the specifying device and the memory device are integral such that the processor stores the consumption information to the specifying device.

Patent 6,426,660

68. A medication system for performing at least one health safety function related to a medication, the system comprising:

at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, the specifying information includes information that can be used by the processor to identify a consumption regimen for the user for which the medication was prescribed;

a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area;

a processor linked to the sensor;

a timing device linked to the processor; and

a consumption indicator linked to the processor, the consumption indicator activatable to indicate that the user is consuming a dose of medication from the container;

wherein, when the specifying device is within the sensing area, the sensor receives the specifying information and provides the specifying information to the processor, the processor identifies the consumption regimen from the specifying information, thereafter, the processor monitoring the consumption indicator to identify activation and upon activation determining if the activation time occurs at a consumption regimen time.

69. The system of claim 68 further including a warning indicator, the processor causing the warning indicator to indicate an occurrence related to the health safety function.

70. The [ 46]system of claim 69 wherein the processor, warning indicator and sensor are integral.

71. The [ 47]system of claim 69 wherein the warning indicator is one of a visual and an audible warning indicator.

72. The system of claim 68 wherein the consumption indicator and the sensor are integral such that placement of the specifying device within the sensing area activates the consumption indicator indicating consumption.

73. The [ 48]system of claim 68 further including a warning indicator wherein the health safety function further includes, upon determining that the activation time is inconsistent with a consumption regimen time, causing the warning indicator to indicate the inconsistency.

74. The system of claim 68 further including a warning indicator wherein the health safety function further includes, upon determining that the activation time is inconsistent with a consumption regimen time, storing the inconsistency in a database.

75. The [ 49]system of claim 68 further including a warning indicator wherein the health safety function further includes the processor causing the warning indicator to indicate when consumption times occur and, when the activation time is prior to a next consumption time, the processor modifying the next consumption time.

76. The system of claim 75 wherein the processor modifies the next consumption time by skipping the next consumption time.

77. The [ 50]system of claim 68 further including a warning indicator and a timing device linked to the processor wherein, after the processor identifies the consumption regimen, the processor tracks the time and causes the warning indicator to indicate each time the medication should be consumed.

78. The [ 51]system of claim 77 wherein the container and medication to be stored therein are a first container and a first medication and the system further includes at least a second container for holding doses of a second medication, the

second container having a second specifying device containing specifying  
5 information related to the second medication, when the second specifying device is  
positioned within the sensing area the processor receiving the corresponding  
specifying information and identifying the consumption regimen for the second  
medication, the health safety function further including identifying consumption times  
10 for each of the first and second medications and, when a first medication  
consumption time is within a threshold period of a second medication consumption  
time, indicating that each of the first and second medications should be consumed at  
essentially the same time.

79. The [ 52]system of claim 68 further including a consumption indicator  
for indicating a remote consumption period to the processor during which a  
medication user intends to consume the medication, the health safety function  
further including the processor determining consumption requirements during the  
remote consumption period based on the consumption regimen and indicating the  
consumption requirements to the user.

80. The [ 53]system of claim 79 further including a warning indicator and a  
timing device linked to the processor wherein, after the processor identifies the  
consumption regimen, the health safety function further includes the processor  
tracking the time and causes the warning indicator to indicate each time the  
5 medication should be consumed and, when the user indicates a remote consumption  
period, the processor cancels the consumption indications during the remote  
consumption period.

81. The [ 54]system of claim 68 further including a database accessible by  
the processor, the database correlating the medication to be stored in the container  
with a consumption regimen, the specifying information identifying the medication to  
be stored in the container, the processor identifying the consumption regimen by  
5 correlating the medication type to be stored in the container with the corresponding  
consumption regimen in the database.

82. A [ 55]medication system for performing at least one health safety function related to a medication, the system comprising:

at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, the specifying information including information that can be used by the processor to determine if the user for whom the medication has been prescribed is allergic to the medication;

a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area; and

a processor linked to the sensor;

wherein, when the specifying device is within the sensing area, the sensor receives the specifying information and provides the specifying information to the processor, the processor using the specifying information to perform at least one health safety function wherein the health safety function includes determining if the user is allergic to the medication.

83. The system of claim 82 further including a warning indicator wherein, if the processor determines that the user is allergic to the medication, the processor causes the warning indicator to indicate that the user is allergic to the medication.

84. The system of claim 82 further including a database accessible by the processor, the database including allergy information related to the medication user's allergies, the specifying information including at least medication type, the processor determining if the user is allergic by comparing the medication type to the allergy information.



85. A medication system for performing at least one health safety function related to a medication, the system comprising:

at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container;

a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area; and

a processor linked to the sensor;

wherein, when the specifying device is within the sensing area, the sensor receives the specifying information and provides the specifying information to the processor, the processor using the specifying information to perform at least one health safety function wherein the health safety function includes storing prescription records for medication users wherein the container and medication to be stored therein are a first container and a first medication prescribed for a first user and the system further includes at least a second container for storing at least a second medication for at least a second user, the second container including a second specifying device, the sensor receiving specifying information from the second specifying device when the second device is positioned within the sensing area, the specifying information indicating at least medication type and medication user, the health safety function including organizing at least a sub-set of the specifying information for each container according to medication user.

86. The system of claim 85 wherein the specifying information includes information that can be used by the processor to identify a consumption regimen for the user for which the medication was prescribed, the health safety function including identifying the consumption regimen for each container and organizing the consumption regimens according to medication user.

87. The system of claim 86 further including a warning indicator and a timing device linked to the processor wherein, after the processor identifies a consumption regimen, the processor tracks the time and causes the warning

- 5 indicator to indicate each time the medication corresponding to the regimen should be consumed and to indicate for which of the first and second user's the medication to be consumed has been prescribed.

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88. A medication system for performing at least one health safety function related to a medication, the system comprising:

at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container;

a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area; and

a processor linked to the sensor;

wherein, when the specifying device is within the sensing area, the sensor receives the specifying information and provides the specifying information to the processor, the processor using the specifying information to perform at least one health safety function, wherein the health safety function includes determining the prudence of a medication user consuming each of first and second medications, the container and medication to be stored therein including a first container and first medication, the system further including:

a second container for holding doses of a second medication, the second container having a specifying device containing specifying information related to the second medication, when the second container specifying device is within the sensing area, the sensor receiving specifying information from the device;

a data storage device including contraindication information related to a plurality of medications, the contraindication information useable to determine the prudence of a medication user consuming both the first and second medications;

wherein the processor retrieves the specifying and contraindication information from the specifying devices and the data storage device, respectively, and uses the specifying and contraindication information to determine the prudence of consuming both the first and second medications.

89. The system of claim 88 wherein the data storage device and the first specifying device are integral and reside on the first container.

90. The system of claim 89 further including a warning indicator wherein, when the processor determines that the first and second medications should not be consumed by the same user, the processor causes the warning indicator to indicate that the medications should not be consumed together.

91. The system of claim 88 wherein the data storage device is linked to the processor via a computer network.

92. The system of claim 88 wherein the specifying information in the first and second container specifying devices identifies each of the first and second medications, respectively.

93. The system of claim 88 wherein the specifying information includes information useable by the processor to identify the first and second medication types and to determine the consumption regimens for each of the first and second medications and, wherein the processor uses the consumption regimens, medication types and contraindication information to determine the prudence of taking the medications according to the consumption regimens.

Patent # 04,222,800

94. A [ 58]medication system for performing at least one health safety function related to a medication, the system comprising:  
at least one container for holding doses of a medication, the container having  
a specifying device containing specifying information related to the medication to be  
held in the container;

a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area;

a processor linked to the sensor;

a database accessible to the processor wherein the database includes at least one message related to the specifying information, the interface for providing messages to a system user; and

and a user interface linked to the processor

wherein, when the specifying device is within the sensing area, the sensor receives the specifying information and provides the specifying information to the processor, the processor using the specifying information to perform at least one health safety function, the health safety function including accessing the database and retrieving the at least one message related to the specifying information and presenting the message to the user via the interface.

95. The system of claim 94 wherein the database is accessible to the processor via a computer network.

96. The system of claim 94 wherein the database is stored on the specifying device.

97. The [ 59]system of claim 94 wherein the message includes a questionnaire including at least one question and the health safety function further includes, after the at least one question has been presented, facilitating entry of an answer via the interface and, when an answer is entered, storing the answer.

98. The [ 60]system of claim 97 wherein the specifying information also includes information from which the processor can identify a medication consumption regimen, the health safety function further including the processor determining the consumption regimen and, in response to at least a subset of user answers to questionnaires, modifying the consumption regimen.

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99. The system of claim 98 further including a warning indicator and a timing device linked to the processor wherein, after the processor identifies the consumption regimen, the processor tracks the time and causes the warning indicator to indicate each time the medication should be consumed

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100. A [ 61]medication system for performing at least one health safety function related to a medication, the system comprising:

at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container;

a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area;

a processor linked to the sensor;

a timing device linked to the processor;

a database accessible to the processor; and

a consumption indicator linked to the processor, the indicator activatable to indicate that the user is consuming a dose of medication from the container;

wherein, when the specifying device is within the sensing area, the sensor receives the specifying information and provides the specifying information to the processor, the processor using the specifying information to perform at least one health safety function, the health safety function including the processor, when the consumption indicator is activated, identifying the activation time and storing the activation time as user consumption record in the database.

101. The system of claim 100 wherein the health safety function further includes the processor presenting the user consumption record to the user for review.

102. A medication system for performing at least one health safety function related to a medication, the system comprising:

at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container;

a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area; and

a processor linked to the sensor;

wherein, when the specifying device is within the sensing area, the sensor receives the specifying information and provides the specifying information to the processor, the processor using the specifying information to perform at least one health safety function, wherein the container and medication to be stored therein are a first container and a first medication and the system further includes at least a second container for holding doses of a second medication, the second container having a second specifying device containing specifying information related to the second medication, when the second specifying device is positioned within the sensing area the processor receiving the corresponding specifying information and identifying the consumption regimen for the second medication, the health safety function including identifying relative consumption times for each of the first and second medications as a function of both the first and second container specifying information.

103. The system of claim 103 further including a warning indicator and a timing device linked to the processor wherein, after the processor identifies the consumption regimens, the processor tracks the time and causes the warning indicator to indicate each time either of the first or second medications should be consumed.



104. A medication system for performing at least one health safety function related to a medication, the system comprising:

at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, the specifying information including information related to the number of separate medication doses to be included in the container;

a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area;

a processor linked to the sensor; and

a consumption indicator linked to the processor wherein, the consumption indicator is activatable to indicate that the user is consuming a dose of medication from the container;

wherein, when the specifying device is within the sensing area, the sensor receives the specifying information and provides the specifying information to the processor, the processor using the specifying information to perform at least one health safety function, the health safety function including the processor determining, based on the number of medication doses and the number of consumption indicator activations, when a medication refill should be ordered.

105. The system of claim 104 further including a warning indicator linked to the processor, the health safety function further including causing the warning indicator to indicate when a medication refill should be ordered.

106. The system of claim 105 wherein the processor is linked to a medication reorder server via a computer network, the health safety function further including the processor transmitting a refill order to the server when the refill should be ordered.

107. A method for performing at least one health safety function, the method for use with a system including at least one container for holding doses of medication, the container having a specifying device containing specifying information useable to determine a prescribed dosing regimen for the medication, the method comprising the steps of:

providing a sensor defining a sensing area that is large enough to receive at least two separate specifying devices at one time, the sensor for receiving the specifying information from the specifying devices when the specifying devices are within the sensing area, the sensor linkable to the processor;

positioning at least one specifying device within the sensing area;

receiving the specifying information;

using the specifying information to identify prescribed dosing regimen information; and

performing at least one health safety function as a function of the prescribed dosing regimen information.

The method of claim 107 wherein the health safety function includes indicating when to consume each medication for which a specifying device is within the sensing area, the method further including the steps of:

providing a communication device that is linkable to the processor;

receiving the specifying information for each specifying device in the sensing area;

using the specifying information to identify a predetermined time to take each of the medications;

determining when the predetermined time occurs for each of the medications;

and

causing the communication device to indicate the medications to be consumed at the predetermined times.

108. The method of claim 108 wherein the step of providing a sensor includes providing a sensor that defines at least two separate sensing areas for receiving specifying information from separate containers, the step of providing a communication device includes providing a separate visual warning indicator

5 adjacent each of the sensing areas and, wherein, the step of indicating includes causing the communication device corresponding to a specific medication to indicate by activating the visual warning indicator adjacent medication to be consumed.

109. The method of claim 107 wherein the specifying information includes a serial number and the processor is linkable to a memory device that correlates serial numbers with prescribed dosing regimens and wherein the step of identifying includes identifying the dosing regimen by correlating the serial number and the  
5 regimen.

110. The method of claim 107 wherein the health safety function includes recording consumption times, the method further for use with a readable and writable memory device and a consumption indicator that are linkable to the processor, the consumption indicator operable to obtain consumption time information which the processor records in the memory device, the method further including the step of monitoring the indicator to identify consumption time.

111. The method of claim 107 wherein the at least one health safety function includes determining when determining when a medication is consumed too early.

Patent 6,252,525

112. A method for recording medication consumption times, the method to be used with a system including at least one container for holding doses of medication, the container having a specifying device containing specifying information useable to determine the type of medication in the container, a readable and writable memory device, a consumption indicator, a sensor defining a sensing area, the sensor for receiving the specifying information when the specifying device is within the sensing area and a processor in communication with a timing device and also linkable to the consumption indicator, the memory device and the sensor, the method comprising the steps of:

positioning the memory device within the sensing area;  
receiving the specifying information;  
using the specifying information to identify the medication type;  
monitoring the consumption indicator for operation;  
when the consumption indicator is operated, determining the consumption time; and  
storing the consumption time and medication type in the memory device.

113. The method of claim 113 wherein the specifying information includes a serial number and the processor is linkable to a memory device that correlates serial numbers with medication types and wherein the step of identifying medication type includes the step of correlating the serial number and the medication type.

114. The method of claim 113 wherein the at least one container includes several containers, each container includes a specifying device, the sensing area can receive more than one specifying device at a time and, wherein, when more than one specifying device is within the sensing area, the step of receiving includes receiving the specifying information from each of the specifying devices.

115. The method of claim 113 wherein the consumption indicator and sensor are integral and wherein the step of monitoring the consumption indicator includes determining one of when the memory device is positioned within the sensing area and removed from the sensing area.

116. A [ 66]method for performing at least one health safety function related to a medication, the method for use with a system including at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, the specifying information includes information that can be used by the processor to identify a consumption regimen for the user for which the medication was prescribed, a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area, a processor linked to the sensor, a timing device linked to the processor wherein and a consumption indicator linked to the processor, the consumption indicator activatable to indicate that the user is consuming a dose of medication from the container, the method comprising the steps of:

positioning the specifying device is within the sensing area,  
receiving the specifying information;  
using the specifying information to identify the consumption regimen;  
monitoring the consumption indicator to identify activation; and  
upon activation determining if the activation time occurs at a consumption regimen time.

117. The method of claim 117 wherein the system further includes a warning indicator, the method further causing the warning indicator to indicate an occurrence related to the health safety function.

118. The [ 68]method of claim 117 wherein the system further includes a warning indicator wherein the method further includes, upon determining that the activation time is inconsistent with a consumption regimen time, causing the warning indicator to indicate the inconsistency.

119. The method of claim 117 wherein the method further includes, upon determining that the activation time is inconsistent with a consumption regimen time, storing the inconsistency in a database.

120. The [ 69]method of claim 117 wherein the system further includes a warning indicator wherein the method further includes causing the warning indicator to indicate when consumption times occur and, when the activation time is prior to a next consumption time, modifying the next consumption time.

121. The method of claim 121 wherein the step of modifying the next consumption time includes skipping the next consumption time.

122. The [ 70]method of claim 121 wherein the system further includes a warning indicator and a timing device linked to the processor wherein, after the step of identifying the consumption regimen, the method further includes tracking the time and causing the warning indicator to indicate each time the medication should be consumed.

123. The [ 71]method of claim 123 wherein the container and medication to be stored therein are a first container and a first medication and the system further includes at least a second container for holding doses of a second medication, the second container having a second specifying device containing specifying information related to the second medication, when the second specifying device is positioned within the sensing area the processor receiving the corresponding specifying information and identifying the consumption regimen for the second medication, the method further including identifying consumption times for each of the first and second medications and, when a first medication consumption time is within a threshold period of a second medication consumption time, indicating that each of the first and second medications should be consumed at essentially the same time.

124. The [ 72]method of claim 117 wherein the system further includes a consumption indicator for indicating a remote consumption period to the processor during which a medication user intends to consume the medication, the health safety function further including determining consumption requirements during the remote

5 consumption period based on the consumption regimen and indicating the consumption requirements to the user.

125. The [ 73]method of claim 125 wherein the system further includes a warning indicator and a timing device linked to the processor wherein, after the processor identifies the consumption regimen, the method further includes tracking the time and causes the warning indicator to indicate each time the medication  
5 should be consumed and, when the user indicates a remote consumption period, canceling the consumption indications during the remote consumption period.

126. The [ 74]method of claim 117 wherein the system further includes a database accessible by the processor, the database correlating the medication to be stored in the container with a consumption regimen, the specifying information identifying the medication to be stored in the container, the step of identifying the consumption regimen including correlating the medication type to be stored in the container with the corresponding consumption regimen in the database.

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127. A method for performing at least one health safety function related to a medication, the method for use with a system including at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, the specifying information including information that can be used by the processor to determine if the user for whom the medication has been prescribed is allergic to the medication, a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area and a processor linked to the sensor, the method comprising the steps of:

positioning the specifying device within the sensing area; and

receiving the specifying information;

using the specifying information to perform at least one health safety function wherein the health safety function includes determining if the user is allergic to the medication.

128. The method of claim 128 wherein the system further includes a warning indicator and the method further includes the step of, if the processor determines that the user is allergic to the medication, causing the warning indicator to indicate that the user is allergic to the medication.

129. The method of claim 128 wherein the system further includes a database accessible by the processor, the database including allergy information related to the medication user's allergies, the specifying information including at least medication type, the step of determining if the user is allergic including comparing the medication type to the allergy information.



130. A method for performing at least one health safety function related to a medication, the method for use with a system including at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area and a processor linked to the sensor, wherein the container and medication to be stored therein are a first container and a first medication prescribed for a first user and the method further includes at least a second container for storing at least a second medication for at least a second user, the second container including a second specifying device, the sensor receiving specifying information from the second specifying device when the second device is positioned within the sensing area, the specifying information indicating at least medication type and medication user, the method comprising the steps of:

positioning the specifying device within the sensing area;  
receiving the specifying information; and  
organizing at least a sub-set of the specifying information for each container according to medication user.

131. The method of claim 131 wherein the specifying information includes information that can be used by the processor to identify a consumption regimen for the user for which the medication was prescribed, the step of organizing including identifying the consumption regimen for each container and organizing the consumption regimens according to medication user.

132. The method of claim 132 wherein the system further includes a warning indicator and a timing device linked to the processor wherein, after the step of identifying a consumption regimen, the method further includes the steps of tracking the time and causes the warning indicator to indicate each time the medication corresponding to the regimen should be consumed and to indicate for which of the first and second user's the medication to be consumed has been prescribed.

133. A method for performing at least one health safety function related to a medication, the method to be used with a system including at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area, a processor linked to the sensor, a second container for holding doses of a second medication, the second container having a specifying device containing specifying information related to the second medication, when the second container specifying device is within the sensing area, the sensor receiving specifying information from the device, and a data storage device including contraindication information related to a plurality of medications, the contraindication information useable to determine the prudence of a medication user consuming both the first and second medications, the method comprising the steps of:

positioning each the specifying devices within the sensing area; and  
receiving the specifying information from each of the devices;  
retrieving the contraindication information from the storage device; and  
using the specifying information and the contraindication information to determine the prudence of a medication user consuming each of first and second medications.

134. The method of claim 134 wherein the system further includes a warning indicator, the method further including, when it is determined that the first and second medications should not be consumed by the same user, the causing the warning indicator to indicate that the medications should not be consumed together.

135. The method of claim 134 wherein the specifying information includes information useable by the processor to identify the first and second medication types and to determine the consumption regimens for each of the first and second medications and, wherein the step of using further includes using the consumption regimens, medication types and contraindication information to determine the prudence of taking the medications according to the consumption regimens.

136. A method for performing at least one health safety function related to a medication, the method for use with a system including at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area, a processor linked to the sensor, a database accessible to the processor wherein the database includes at least one message related to the specifying information, the interface for providing messages to a method user and a user interface linked to the processor, the method comprising the steps of:

providing the specifying device within the sensing area;  
receiving the specifying information;  
using the specifying information to access the database and retrieve the at least one message related to the specifying information; and  
presenting the message to the user via the interface.

137. The method of claim 137 wherein the message includes a questionnaire including at least one question and the method further includes, after the at least one question has been presented, facilitating entry of an answer via the interface and, when an answer is entered, storing the answer.

138. The method of claim 138 wherein the specifying information also includes information from which the processor can identify a medication consumption regimen, the method further including the processor determining the consumption regimen and, in response to at least a subset of user answers to questionnaires, modifying the consumption regimen.

139. The method of claim 139 wherein the system further includes a warning indicator and a timing device linked to the processor wherein, after the consumption regimen is identified, the method further includes tracking the time and causes the warning indicator to indicate each time the medication should be consumed

140. A method for performing at least one health safety function related to a medication, the method for use with a system including at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area, a processor linked to the sensor, a timing device linked to the processor, a database accessible to the processor and a consumption indicator linked to the processor, the indicator activatable to indicate that the user is consuming a dose of medication from the container, the method comprising the steps of:

- providing the specifying device within the sensing area; and
- receiving the specifying information;
- monitoring indicator activation; and

- when the consumption indicator is activated, identifying the activation time and the medication and storing the activation time and medication type as a user consumption record in the database.

141. A method for performing at least one health safety function related to a medication, the method for use with a system including at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area and a processor linked to the sensor, wherein the container and medication to be stored therein are a first container and a first medication and the method further includes at least a second container for holding doses of a second medication, the second container having a second specifying device containing specifying information related to the second medication, when the second specifying device is positioned within the sensing area the processor receiving the corresponding specifying information and identifying the consumption regimen for the second medication, the method including the steps of:

- providing each of the specifying devices within the sensing area;
- receiving the specifying information from each of the devices; and
- using the specifying information to identify relative consumption times for each of the first and second medications as a function of both the first and second container specifying information.

142. The method of claim 141 wherein the system further includes a warning indicator and a timing device linked to the processor wherein, after the step of identifying the consumption regimens, the method further includes the steps of tracking the time and causes the warning indicator to indicate each time either of the first or second medications should be consumed.

143. A method for performing at least one health safety function related to a medication, the method for use with a system including at least one container for holding doses of a medication, the container having a specifying device containing specifying information related to the medication to be held in the container, the specifying information including information related to the number of separate medication doses to be included in the container, a sensor defining a sensing area, the sensor for receiving specifying information from the specifying device when the specifying device is within the sensing area, a processor linked to the sensor and a consumption indicator linked to the processor wherein, the consumption indicator is activatable to indicate that the user is consuming a dose of medication from the container, the method comprising the steps of:

providing each of the specifying devices within the sensing area;  
receiving the specifying information from each of the devices; and  
using the specifying information to perform at least one health safety function, the health safety function including the processor determining, based on the number of medication doses and the number of consumption indicator activations, when a medication refill should be ordered.

144. The method of claim 144 wherein the system further includes a warning indicator linked to the processor, the method further including causing the warning indicator to indicate when a medication refill should be ordered.

145. The method of claim 144 wherein the processor is linked to a medication reorder server via a computer network, the method further including the processor transmitting a refill order to the server when the refill should be ordered.

146. A [ 85]medication system for performing at least one health safety function, the system comprising:

at least one container for holding doses of medication, the container having a specifying device containing specifying information useable to identify information related to the medication;

a sensor defining a sensing area, the sensor for receiving the specifying information when the specifying device is within the sensing area; and

a processor linked to a memory device;

wherein the processor receives and uses the specifying information to identify information related to the medication and the processor performs at least one health safety function as a function of the information related to the container, the health safety function being one of identifying allergies, comparing the medication information to other information to identify contraindication conditions, tracking medication consumption, after an indication is received that a medication is going to be consumed, determining if the consumption time is consistent with a regimen for the medication, scheduling medication consumption as a function of the medication information and other information stored in the memory device, determining when to reorder medication, reordering medication, modifying medication consumption regimen, creating a record of medication consumption and providing other information from the memory device that is related to the specifying information.

147. A method for indicating times when medication should be consumed, the method to be used with at least one container for holding doses of medication, the container having a specifying device containing specifying information useable to determine a prescribed dosing regimen for the medication, a communication device,  
5 a sensor defining a sensing area, the sensor for receiving the specifying information when the specifying device is within the sensing area and a processor in communication with a timing device and also linkable to the communication device and the sensor, the method comprising the steps of:

10 at a first time, positioning the specifying device within the sensing area;  
receiving the specifying information from the specifying device in the sensing area;

15 using the specifying information to identify a predetermined time to take the medication;

determining when the predetermined time occurs at a second time subsequent to the first time;

20 indicating via the communication device that the medication container including the medication to be consumed at the predetermined time should be positioned such that the sensor is within the sensing area;

retrieving a container;

25 positioning the retrieved container such that the specifying device on the retrieved container is within the sensing area, receiving at least a sub-set of information from the specifying device on the retrieved container that is useable to identify the container;

comparing the sub-set of information to the specifying information received at the first time to determine if the retrieved container is the container storing the medication to be consumed at the predetermined time; and

indicating via the communication device whether or not a dose of medication from the retrieved container should be consumed.

148. The method of claim 148 wherein the communication device includes a visual device and the step of indicating includes modifying the information communicated via the display.



149. The method of claim 149 wherein the communication device includes a light and wherein the step of indicating that a container including the medication should be positioned such that the specifying device is within the sensing area includes illuminating the light.

150. The method of claim 150 wherein the step of indicating whether or not a dose of medication should be consumed includes the step of modifying the illumination of the light.

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151. A [ 87]method for modifying consumption times of medications, the method for use with a processor linkable to a memory device where consumption regimens corresponding to at least first and second medications to be consumed by a patient are stored in the memory device, the method comprising the steps of:

- 5 identifying the first and second medication consumption times; and
- when the first medication consumption time is within a threshold period of the second medication consumption time, indicating that each of the first and second medications should be consumed at essentially the same time.

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152. A method for providing a medication regimen to a remote device for remote support of at least one health safety function, the method for use with a processor linkable to a memory device, the memory device including regimen information for at least one medication to be consumed by a patient, the method also for use with a remote device for indicating medication consumption times, the processor capable of providing information to the remote device, the method comprising the steps of:

indicating to the processor a remote consumption period during which medications are to be consumed remotely;

identifying the medications regimens for the patient that require medication consumption during the remote consumption period;

placing the remote device proximate the processor so that the processor can provide information to the remote device;

providing the portions of the medication regimens that correspond to the remote consumption period to the remote device;

storing the medication regimens on the remote device; and

indicating, via the remote device, the times prescribed by the stored medication regimen during the remote use.